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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,752	07/07/2005	Georg Werner Reppel	47192/312177	6817

23370 7590 12/03/2008  
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EXAMINER
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SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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12/03/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/524,752	<b>Applicant(s)</b> REPEL, GEORG WERNER	
	<b>Examiner</b> John P. Sheehan	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- I. Amended claim 13 now recites that the powder is homogenized.

According to The ASM Materials Engineering Dictionary, in metallurgy to homogenize means;

A heat treating practice whereby a metal object  
Is held at high temperature to eliminate or  
decrease chemical segregation by diffusion

As presently drafted claim 13 encompasses such a heat treatment, however there is not support in the application as filed for such a heat treatment.

***Claim Interpretation***

3. Claims 1 and 2 each recite, “a starting material based on an SE-TM-B alloy” (claims 1 and 2, line 3, emphasis added by the Examiner). In view of the use of the term “based on”, the phrase, “a starting material based on an SE-TM-B alloy” is not limited to an alloy consisting of rare earth-transition metal-boron but rather has been interpreted to mean any rare earth-transition metal-boron alloy containing any additional elements in any amount.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 to 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeshita et al. (Takeshita '374, US Patent No. 5,110,374, cited by the Examiner) in view of either Kim (Kim '020, US Patent No. 5,091,020, cited in the IDS submitted May 18, 2005) or Kaneko et al. (Kaneko '861, US Patent No. 6,149,861, cited by the Examiner).

Takeshita '374 teaches an HDDR process that is encompassed by the HDDR process recited in the instant claims (page 10, lines 24 to 43). Takeshita teaches that the HDDR process produces an anisotropic rare earth-transition metal-boron alloy powder having a recrystallized grain structure containing the  $R_2Fe_{14}B$  phase (column 3,

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lines 55 to 60) and that this rare earth-transition metal-boron alloy powder is used to make bonded magnets (column 3, lines 48 to 51). Takeshita '374 teaches that the  $R_2Fe_{14}B$  phase occupies no less than 50 volume % of the rare earth-transition metal-boron alloy (column 6, lines 3 to 10) as recited in claim 6. Takeshita '374 teaches at least one specific example of the HDDR process having process steps that are encompassed by the claims (column 14, Example 1). Takeshita '374 teaches that the disclosed HDDR process is applicable to rare earth-transition metal-boron alloys containing Fe, Ni or Co as recited in claim 4 and C, O, N and S as recited in claims 5 (column 9, lines 14 to 36). Takeshita '374 teaches that the starting material for the HDDR process is a rare earth-transition metal-boron alloy containing the  $R_2Fe_{14}B$  structure (column 6, lines 19 to 36). Thus, the process steps recited in applicants' claims are known.

Kim '020 and Kaneko '861 each teach the concept of recycling scrap and or scrap sintered  $R_2Fe_{14}B$  rare earth-transition metal-boron alloy (Abstract of each) and that the recycled rare earth-transition metal-boron alloy is used in place of new rare earth-transition metal-boron alloy powder (Kim '020, column 1, lines 60 to 64 and Kaneko '861, column 2, lines 14 to 28) as recited in claims 1 and 2. Kaneko '861 also teaches that the concept of recycling rare earth-transition metal-boron alloy is motivated by economics and environmental concerns (column 2, lines 14 to 28). Thus, the concept of recycling rare earth-transition metal-boron alloy is well known.

The claims and Takeshita '374 differ in that Takeshita '374 teaches the use of new rare earth-transition metal-boron alloy in the disclosed HDDR process and not scrap rare earth-transition metal-boron alloy as recited in the claims.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because such a person would have been motivated to substitute scrap rare earth-transition metal-boron alloy for the new rare earth-transition metal-boron alloy as the starting material in Takeshita '374's process for economic and environmental reasons as taught by each of Kim '020 and Kaneko '861. The results of such a substitution are reasonably predictable.

### ***Response to Arguments***

6. Applicant's arguments filed August 14, 2008 have been fully considered but they are not persuasive.

7. Applicants argue that as evidenced by Kim and Kaneko conventional methods of recycling magnetic materials differ significantly from manufacturing new magnetic materials. The Examiner is not persuaded. The fact that conventional methods of recycling magnetic materials may differ significantly from methods of manufacturing new magnetic materials is not a prohibition against the application of Takeshita '374's process to recycled material. It has not been established that Takeshita '374's method is not applicable to anything other than new magnetic material and cannot be applied to recycled magnetic material.

8. Applicants' argument that the process conditions of the HDDR process differ when applied to recycled magnetic material and new magnetic material is not persuasive. Applicants have not pointed out how the HDDR process conditions for recycled magnetic material differ from the process conditions recited in the instant claims. Further, the instant claims are silent with respect to the HDDR process conditions. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. Applicants' argument that in no way would the substitution of scrap magnetic alloys for new magnetic materials have reasonably predictable results is not persuasive. Applicants have not explained the basis nor presented any evidence in support of their conclusion that in no way would the substitution of scrap magnetic alloys for new magnetic materials have reasonably predictable results.

10. Applicants' argument that none of the references teaches the application of the HDDR process to scrap magnetic material. Applicants argument is essentially an argument against the references individually and not the combination of references used by the Examiner in making the rejection. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

11. Applicants' argument that the skilled worker in the art would be more inclined to improve upon the conventional recycling processes such a taught by Kim and Kaneko

rather than applying known methods of producing new magnetic materials to the concept of recycling is not persuasive. This argument is no more than applicants' unsubstantiated opinion.

### ***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (7:30-5:00) Second Monday Off.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John P. Sheehan/

Primary Examiner, Art Unit 1793